diameter) of this species from the Inferior Oolite of Caen, Normandy (B.M. no. 37024). The anterior boundary (a) of the impression can be distinctly followed from the umbili-

Fig. 6.

cus on the one side across the periphery to the umbilicus on the other side; but no trace exists of the posterior boundary.

The above figures (3-6) show how closely the Jurassic species of Nautilus approximate, as regards their muscular attachment, to the recent Nautilus; and this analogy may be carried still further back in geological time judging by the figure of a Triassic species (N. salinarius) given by Mojsisovics *, in which a considerable portion of the anterior boundary of the shell-muscle is preserved.

We are indebted to the kindnass of Dr. II. Woodward, F.R.S., for the use of the woodcuts illustrating this paper.
XXXII.-Description of a new Papilio from the West Coast of Afirica. By H. Grose Smitif.

## Pupilio harpagon.

Male.-Upperside. Both wings błackish brown, with brownish-white spots and bands, as in P. ucalegon, Hew., but on the anterior wings the spot towards the end of the cell, and the band, below the median nervure, is broader, and in the middle of the cell is an indistinct brownish-white spot. On posterior wings the band is broader and exteuds externally as far as the end of the cell.

Underside. Anterior wings as on the upperside. Posterior wings with an orange-coloured spot at the base inside the precostal nervure and another beyond it divided by the costal nervure, followed by three large, indistinct, black spots ; a short indistinct streak of orange colour below the median nervure at its base.

Expanse of wings $3 \frac{1}{4}$ inches.
Hab. Gaboon.
Very near to $P$. ucalegon, but blacker, with wider bands, and otherwise differing as above described.

In the collections of Mr. Crowley and H. Grose Smith.

* "Die Cephalopoden der Mediterranen Trias-Provinz" (Abl. d. k.k. geol. Reichsanst. Band x.), 1882, pl. xci. fig. $3 a$.

